OIPE IAP68
AUG 17 2006
PATENT & TRADEMARK OFFICE

Figure 1

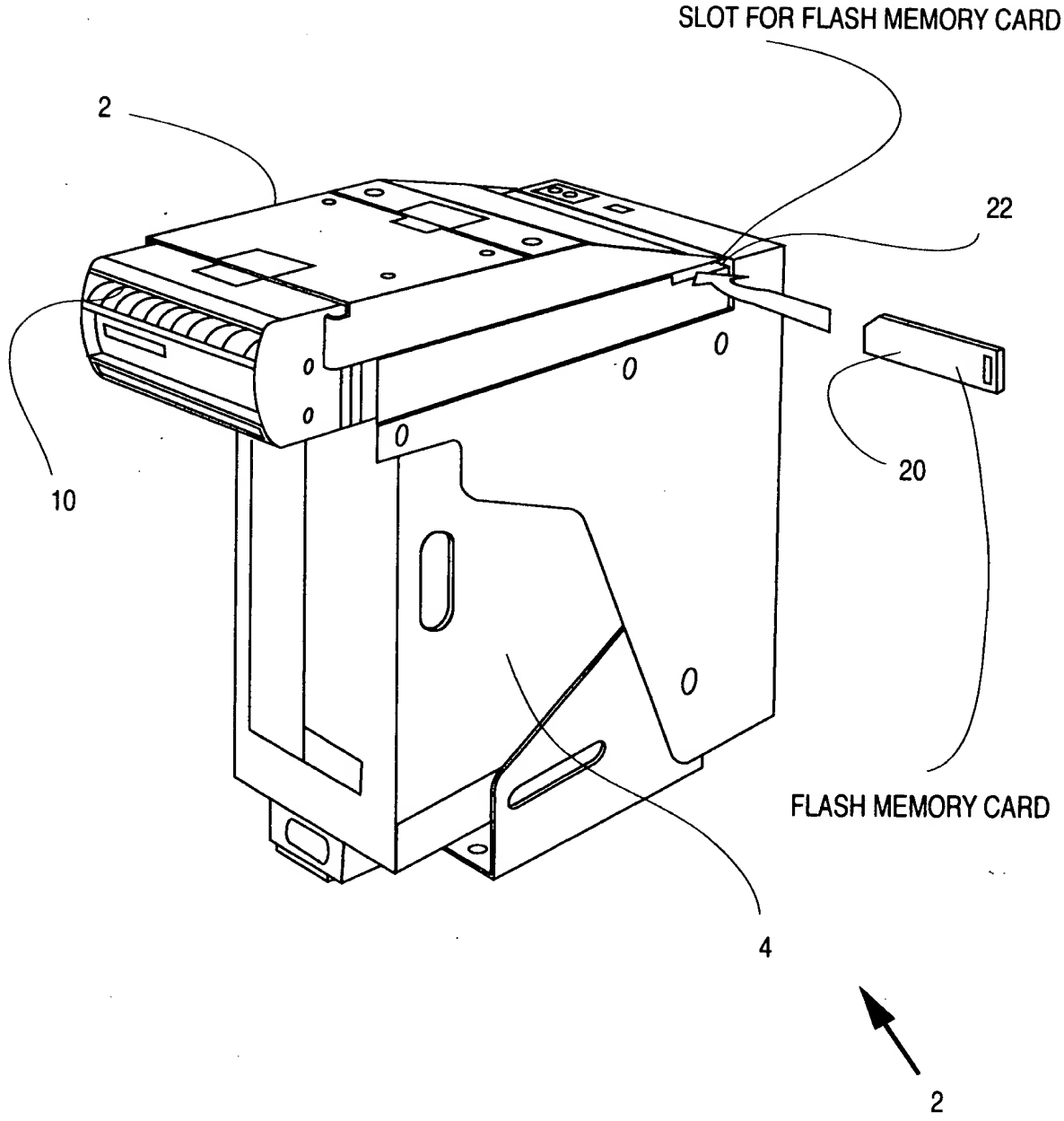

Figure 2

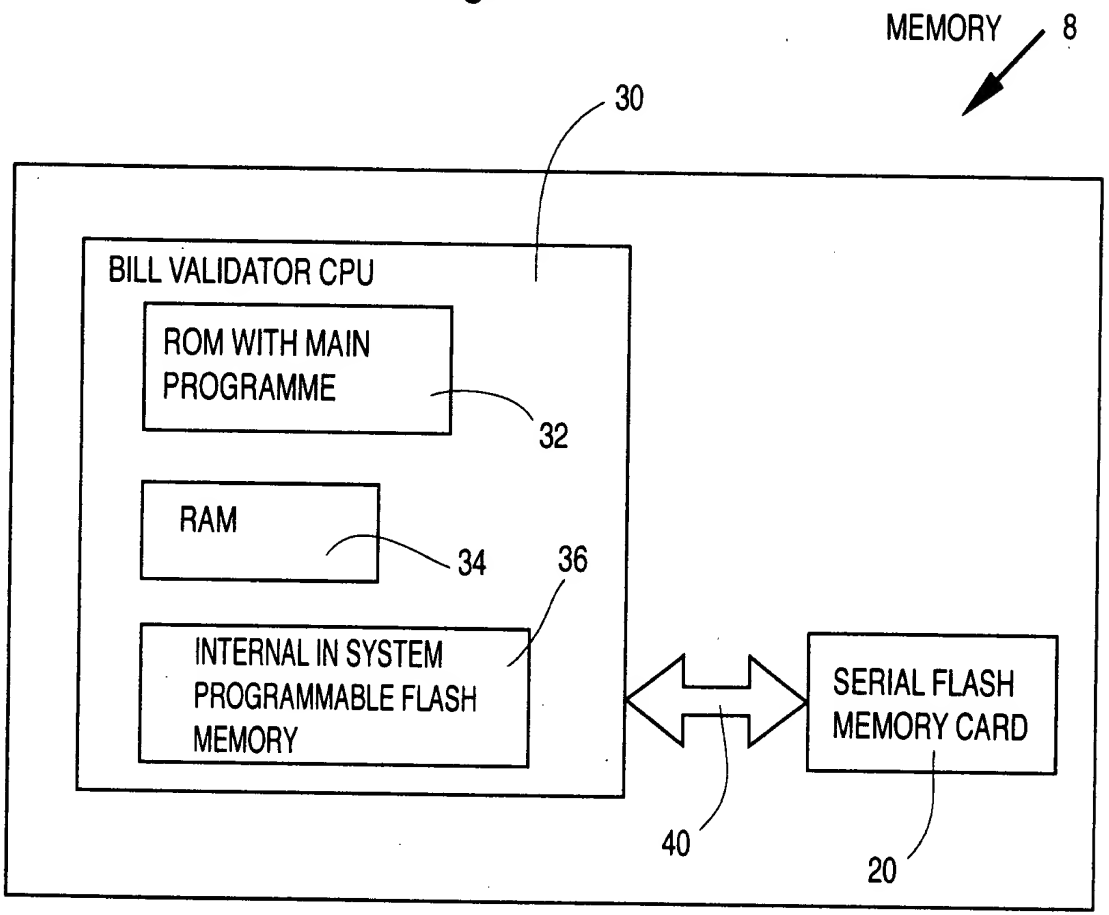
MEMORY
8
30
BILL VALIDATOR CPU
ROM WITH MAIN PROGRAMME
32
RAM
34
36
INTERNAL IN SYSTEM PROGRAMMABLE FLASH MEMORY
SERIAL FLASH MEMORY CARD
40
20

Figure 3

FLASH CARD MEMORY SPACE

MANUFACTURER ID
PART COMPATIBILITY
PACKAGE SPEED
TEMP., VOLTAGE
RESERVED
CHECKSUM MSB
CHECKSUM LSB
RESERVED
SERIAL NUMBER - once programmed memory field
SOFTWARE VERSION
CHANGABLE PART OF MAIN PROGRAMME FOR DOWNLOAD

Figure 4

MAIN CONTROLLER MEMORY SPACE

MAIN PROGRAMME
LOADER FOR AUTOMATIC DOWNLOAD
SECURITY SOFTWARE MANAGER
SECURITY DECODER AND INTERNAL FLASH PROGRAMMER

Figure 5

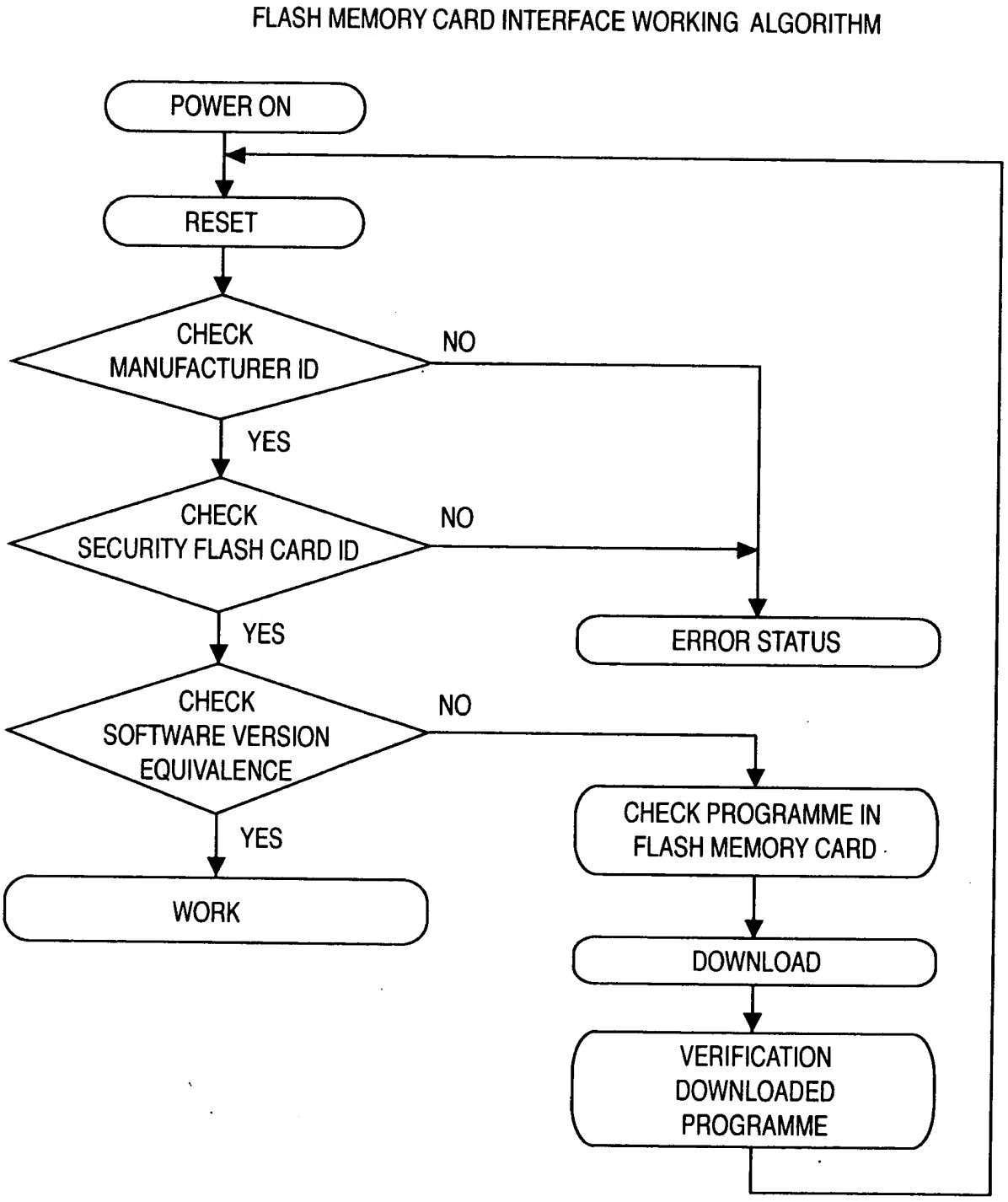
FLASH MEMORY CARD INTERFACE WORKING ALGORITHM
POWER ON
RESET
CHECK MANUFACTURER ID
NO
YES
CHECK SECURITY FLASH CARD ID
NO
YES
ERROR STATUS
CHECK SOFTWARE VERSION EQUIVALENCE
NO
YES
CHECK PROGRAMME IN FLASH MEMORY CARD
WORK
DOWNLOAD
VERIFICATION DOWNLOADED PROGRAMME

Figure 6

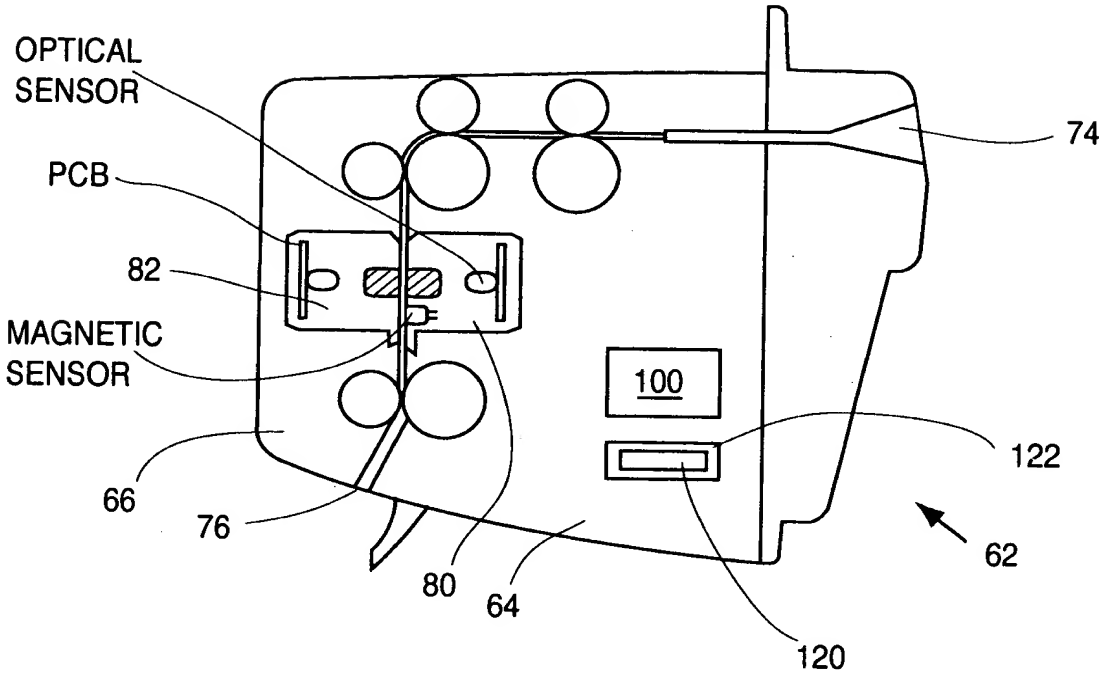
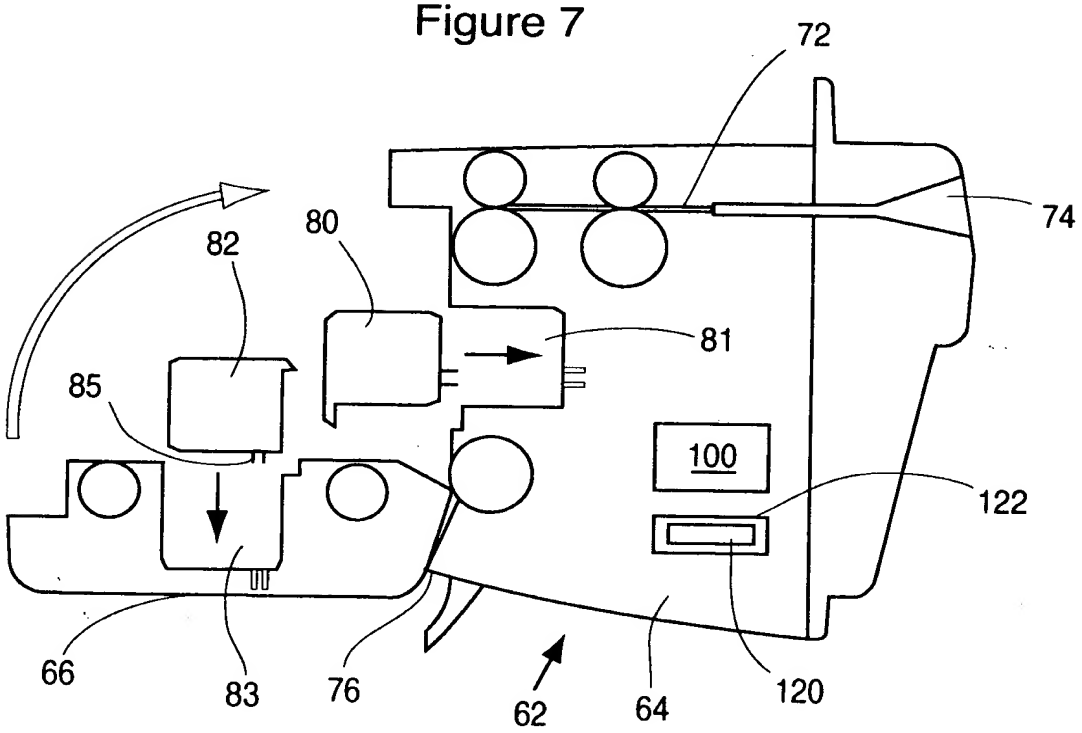
Figure 7